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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>C12Q 1/68, C12P 19/34, G06T 1/00,</b> <b>1/40, G06K 9/58, 9/40, 9/60, C07H 21/04,</b> <b>19/04</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 96/17958</b> <b>(43) International Publication Date:</b> 13 June 1996 (13.06.96)
<b>(21) International Application Number:</b> PCT/US95/16155 <b>(22) International Filing Date:</b> 8 December 1995 (08.12.95)  <b>(30) Priority Data:</b> 08/353,018                      9 December 1994 (09.12.94)                      US  <b>(71) Applicants:</b> THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 22nd floor, 300 Lakeside Drive, Oakland, CA 94612 (US). THE MEDICAL RESEARCH COUNCIL [GB/GB]; Hills Road, Cambridge CB2 2QH (GB).  <b>(72) Inventors:</b> PINKEL, Daniel; 31 Manzanita Court, Walnut Creek, CA 94595 (US). GRAY, Joe, W.; 50 Santa Paula Avenue, San Francisco, CA 94127 (US). ALBERTSON, Donna; 42 Glisson Road, Cambridge CB1 2HF (GB).  <b>(74) Agents:</b> BASTIAN, Kevin, L. et al.; Townsend and Townsend and Crew, Stuart Street Tower, One Market, San Francisco, CA 94105-1492 (US).	<b>(81) Designated States:</b> CA, JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report.</i>	
<b>(54) Title:</b> COMPARATIVE FLUORESCENCE HYBRIDIZATION TO NUCLEIC ACID ARRAYS  <b>(57) Abstract</b> <p>The present invention provides methods of determining relative copy number of target nucleic acids and precise mapping of chromosomal abnormalities associated with disease. The methods of the invention use target nucleic acids immobilized on a solid surface, to which a sample comprising two sets of differentially labeled nucleic acids are hybridized. The hybridization of the labeled nucleic acids to the solid surface is then detected using standard techniques.</p>		

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<p>(51) International Patent Classification <sup>6</sup> : C12N 15/54, 9/12, C12Q 1/68, C07K 16/40, C12N 5/12, G01N 33/68, C12Q 1/48, C07D 41/40, C07C 255/34, C07D 215/00, 239/72</p>	A2	<p>(11) International Publication Number: <b>WO 96/18738</b></p> <p>(43) International Publication Date: 20 June 1996 (20.06.96)</p>
<p>(21) International Application Number: PCT/US95/15846</p> <p>(22) International Filing Date: 6 December 1995 (06.12.95)</p> <p>(30) Priority Data: 08/357,642 15 December 1994 (15.12.94) US 08/460,626 2 June 1995 (02.06.95) US</p> <p>(71) Applicants: SUGEN, INC. [US/US]; 515 Galveston Drive, Redwood City, CA 94063 (US). NEW YORK UNIVERSITY [US/US]; 550 First Avenue, New York, NY 10016 (US).</p> <p>(72) Inventors: LEV, Sima; 8 Locksley Avenue #1C, San Francisco, CA 94122 (US). SCHLESSINGER, Joseph; 37 Washington Square, New York, NY 10011 (US).</p> <p>(74) Agents: WARBURG, Richard, J. et al.; Lyon &amp; Lyon, First Interstate World Center, Suite 4700, 633 West Fifth Street, Los Angeles, CA 90071-2066 (US).</p>		<p>(81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, LS, MW, SD, SZ, UG).</p> <p><b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i></p>
<p>(54) Title: PROBIN TYROSINE KINASE (PYK2) ITS cDNA CLONING AND ITS USES</p>		
<p style="text-align: center;"><b>PYK2</b></p>		
<p>(57) Abstract</p> <p>The present invention features a method for treatment of an organism having a disease or condition characterized by an abnormality in a signal transduction pathway, wherein the signal transduction pathway includes a PYK2 protein. The invention also features methods for diagnosing such diseases and for screening for agents that will be useful in treating such diseases. The invention also features purified and/or isolated nucleic acid encoding a PYK2 protein.</p>		

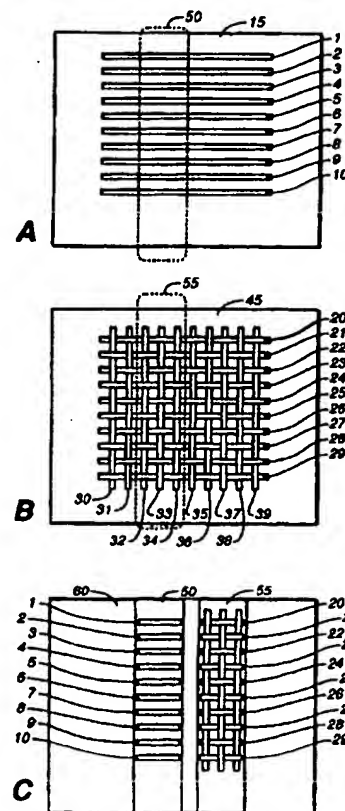
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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup>:</b> <b>B01J 19/00, C12Q 1/68</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 97/46313</b> <b>(43) International Publication Date:</b> 11 December 1997 (11.12.97)
<b>(21) International Application Number:</b> PCT/US97/09902 <b>(22) International Filing Date:</b> 6 June 1997 (06.06.97) <b>(30) Priority Data:</b> 60/018,954 7 June 1996 (07.06.96) US <b>(71) Applicant:</b> ARRAY TECHNOLOGIES [US/US]; 460 Page Mill Road, Palo Alto, CA 94306 (US). <b>(72) Inventor:</b> HEYNEKER, Herbert, L.; 460 Page Mill Road, Palo Alto, CA 94306 (US). <b>(74) Agents:</b> CHICKERING, Robert, B. et al.; Flehr Hohbach Test Albritton & Herbert LLP, Suite 3400, 4 Embarcadero Center, San Francisco, CA 94111-4187 (US).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.          Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>

**(54) Title:** IMMOBILISED LINEAR OLIGONUCLEOTIDE ARRAYS**(57) Abstract**

The present invention provides oligonucleotide arrays comprising a solid support comprising a plurality of different oligonucleotide pools. Each oligonucleotide pool is arranged in a distinct linear row to form an immobilised oligonucleotide stripe, wherein the length of each stripe is greater than its width. Composite arrays are also provided comprising at least one strip of a first array and at least one strip of a second array. Furthermore, the invention also provides methods for making the arrays and methods of detecting the presence or absence of a target sequence in a sample.



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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>C12Q 1/48, C12N 9/12, 15/52, C07K 14/00, A61K 38/17</b>	<b>A1</b>	<b>(11) International Publication Number: WO 98/35056</b> <b>(43) International Publication Date: 13 August 1998 (13.08.98)</b>
<b>(21) International Application Number:</b> PCT/US98/02797 <b>(22) International Filing Date:</b> 9 February 1998 (09.02.98) <b>(30) Priority Data:</b> 60/037,560 11 February 1997 (11.02.97) US <b>(71) Applicant (for all designated States except US):</b> MERCK & CO., INC. [US/US]; 126 East Lincoln Avenue, Rahway, NJ 07065 (US). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> DUONG, Le, T. [US/US]; 126 East Lincoln Avenue, Rahway, NJ 07065 (US). RODAN, Gideon, A. [US/US]; 126 East Lincoln Avenue, Rahway, NJ 07065 (US). <b>(74) Common Representative:</b> MERCK & CO., INC.; 126 East Lincoln Avenue, Rahway, NJ 07065 (US).		<b>(81) Designated States:</b> AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
<b>(54) Title: IDENTIFICATION OF INHIBITORS OF PROTEIN TYROSINE KINASE 2</b>  <b>(57) Abstract</b>  Assays for compounds which bind to or modulate the activity of Protein Tyrosine Kinase 2 are given. These ligands are useful in treating osteoporosis and/or inflammation.		

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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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08/912,885	15 August 1997 (15.08.97)	US
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(74) Agents: ABRAMS, Samuel, B. et al.; Pennie &amp; Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036 (US).

(81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HR, HU; ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

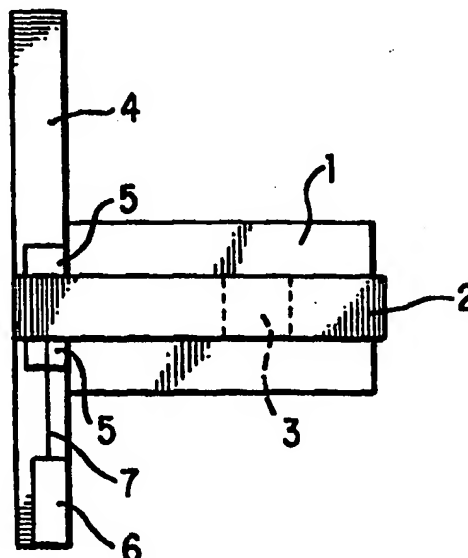
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With international search report.

(54) Title: METHODS AND COMPOSITIONS FOR DETECTION OR QUANTIFICATION OF NUCLEIC ACID SPECIES

## (57) Abstract

The present invention provides a method for detecting a target nucleic acid species using an array of probes affixed to a substrate and a plurality of labeled probes. The invention also relates to oligonucleotide probes attached to discrete particles wherein the particles can be grouped into a plurality of sets based on a physical property. A different probe is attached to the discrete particles of each set, and the identity of the probe is determined by identifying the discrete particles from their physical property. The invention further relates to methods using agents which destabilize the binding of complementary polynucleotide strands (decrease the binding energy) or increase stability of binding between complementary polynucleotide strands (increase the binding energy). The figure is an illustration of an apparatus for mass producing probe arrays.



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<b>(51) International Patent Classification <sup>6</sup> :</b> <b>C12Q 1/68, C12P 19/34, C07H 21/02, 21/04</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 99/51773</b> <b>(43) International Publication Date:</b> 14 October 1999 (14.10.99)
<b>(21) International Application Number:</b> PCT/US99/07203 <b>(22) International Filing Date:</b> 31 March 1999 (31.03.99)  <b>(30) Priority Data:</b> 60/080,686                      3 April 1998 (03.04.98)                      US  <b>(71) Applicant:</b> PHYLOS, INC. [US/US]; 128 Spring Street, Lexington, MA 02421 (US).  <b>(72) Inventors:</b> KUIMELIS, Robert, G.; 21 Malbert Road, Brighton, MA 02135 (US). WAGNER, Richard; 1007 Lowell Road, Concord, MA 01742 (US).  <b>(74) Agent:</b> ELBING, Karen, L.; Clark & Elbing LLP, 176 Federal Street, Boston, MA 02110-2214 (US).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> ADDRESSABLE PROTEIN ARRAYS  <b>(57) Abstract</b>  Disclosed herein are arrays of nucleic acid-protein fusions which are immobilized to a solid surface through capture probes which include a non-nucleosidic spacer group and an oligonucleotide sequence to which the fusion (such as an RNA-protein fusion) is bound. Also disclosed herein are solid supports on which these arrays are immobilized as well as methods for their preparation and use (for example, for screening for protein-compound interactions such as protein-therapeutic compound interactions).		

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